

Abstract

A device and method for selectively hydrogen loading one or more portions of an optical fiber is described. The device includes a housing that defines a first optical fiber port, a second optical fiber port, a chamber within the

5 housing extending from the first optical fiber port to the second optical fiber port to receive the portion of the at least one optical fiber, a hydrogen input port, and a hydrogen channel extending from the hydrogen input port to a portion of the chamber. A portion of an optical fiber is disposed in the chamber. Hydrogen is introduced into the chamber through a hydrogen channel defined by the

10 housing. The hydrogen is then loaded into the portion of the optical fiber within the chamber.